

REMARKS

Claims 1 – 28 are pending in the application. Claim 29 is new. Claims 1,7, 9, 15 and 23 have been amended. Support for the claim amendments is found in paragraphs 18 – 20, and 24 of the instant specification. Claims 1- 28 presently stand rejected.

Regarding the Rejections under 35 U.S.C. §101

Claims 1-8 and 15-28 were rejected as being directed to non-statutory subject matter.

Claim 1 has been amended to clarify that it is directed to implementation within a system which incorporates physical memory storage as well as a software component, thus constituting an item of manufacture that is used for a concrete and tangible purpose. Claims 2-8 each depend from claim 1 and inherit the amendment to the independent claim. Claim 15 has been amended to recite a “computer-readable storage medium,” and claims 16-28 inherit the amendment through their dependency from claim 15. The applicants submit that, as amended, these claims satisfy the requirements under 35 U.S.C. §101. Reconsideration of the Section 101 rejection of these claims is respectfully requested.

Regarding the Rejections under 35 U.S.C. §103

Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cebula et al (US 2004/0153830) in view of Duggan et al (US 6,002,871). The Cebula et al reference relates to a software test system that compiles elements for a test in a single environment, runs the test and reports results to a user. The Duggan et al reference relates to a multi-user software testing tool to test a software application. These rejections are respectfully traversed.

The instant invention relates to automated software test execution using Multi-environment test automation (META) drivers. These test automation drivers may be used in multiple diverse environments such as, for example, to test HTTP calls as well as relational database statements in SQL concurrently. These META drivers provide a flexible, extensible framework for test components so that a single driver can span multiple test environments, allowing a single multi-threaded test to specify and perform tasks defined as specific steps in

each of a plurality of diverse environments in a multi-threaded execution process (*see, specification, paragraph [0026]*)

As amended, claims 1 and 15 recite, in part, “at least one Test Document comprising a description of the environment for each Test and information regarding the verification of results for said Test” and “said Test Document describing at least one multi-threaded Test that can be concurrently executed by different groups in at least two diverse testing environments.” Similarly, claim 7 recites, in part, “an Executor subsystem that concurrently executes at least one Step and generates at least one Execution Result in at least one of a plurality of *diverse* testing environments” (emphasis added). Claims 9 and 23 recite, in part, “said Test being able to be concurrently executed in at least two *diverse* testing environments” (emphasis added). The Cebula et al reference is silent as to these recited features. Indeed, Cebula et al. merely discloses a software test system that compiles elements for a test in a *single* environment, runs the test and reports results to a user. Nowhere does Cebula et al. teach or suggest a Test Document that describes, or a system for executing, “*multi-threaded* Tests,” or that these tests may be “concurrently executed...in at least two diverse testing environments.” The Cebula et al reference thus does not teach at least these elements of claims 1, 7, 9, 15 and 23.

The Duggan et al reference discloses an automated software test system that provides for concurrent execution of a test by “different client connections to the application program under test.” However, this disclosure does not remedy the shortcomings of the Cebula et al reference. The Duggan et al reference in Col 21, lines 45-65, discloses that multiple sessions for testing a software application are instantiated “on different client connections to the application program.” This disclosure teaches that multiple sessions of the same testing environment may be initiated to accommodate a number of clients who are testing the same software application. Thus, the disclosure in Duggan et al provides for different client connections to the *same* testing environment, but not concurrently executing tests “in at least two *diverse testing environments*,” as claimed.

The test method in Duggan et al is a known method for performing load testing of a software application. In a load test, it is important that the testing environment remain the same, limiting diversity, as you initiate additional sessions for additional clients so that the metrics for the tested load of the software application remain uncontaminated. Initiating

connections to “diverse testing environments” is not taught by this type of testing. With the present invention, a test is “able to be concurrently executed in at least two diverse testing environments.” That feature is not disclosed by the Duggan et al reference. Thus, the combination of Cebula et al and Duggan et al does not produce the subject matter of claims 1, 7, 9, 15 and 23. These claims are allowable for at least this reason. Reconsideration of the Section 103 rejection of these claims is respectfully requested.

Regarding claims 12 and 26, these claims recite “said Test Store is implemented as an abstraction that allows a plurality of Test Documents to be stored in at least two different formats.” The Office Action seems to assert that the Cebula et al reference teaches this feature in paragraph [0037], however, it does not. The Cebula et al reference in paragraph [0037] discloses a translation module that can translate one definite format into a second definite format. There is no disclosure or teaching of the implementation of “an abstraction that allows a plurality of Test Documents to be stored in at least two different formats.” The Cebula et al reference provides a disclosure of a limited method for translation directly from one format to a second format. Claims 12 and 26 recite a method step that places a Test Store into an abstract state in which derivation from the abstract state to any other data state for which there is a format is readily accomplished. This is very different from the disclosure in Cebula et al, because even if provided the format, the method disclosed in Cebula et al cannot formulate a test document in a format for which there is no translation module, unlike the instant invention. Therefore, the Cebula et al reference does not provide the teaching to render these claims obvious. These claims are allowable for at least this additional reason. Reconsideration of the Section 103 rejection of these claims is respectfully requested.

Claims 2-6, 8, 10-14 and 16-28 all depend, either directly or indirectly, from one of claims 1, 7, 9 and 15. As such, the applicants submit that these claims are patentable over the combination of Cebula et al and Duggan et al for at least the same reasons as stated above with respect to claims 1, 7, 9 and 15. Accordingly, reconsideration and allowance are respectfully requested.

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CONCLUSION

For all the forgoing reasons, Applicants respectfully submit that the instant application is in condition for allowance. Reconsideration and early allowance is hereby respectfully requested.

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